SEQUENCE LISTING

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<110> FRANGIONE, Blas
      WISNIEWSKI, Thomas
      SIGURDSSON, Einar
<120> SYNTHETIC IMMUNOGENIC BUT NON-AMYLOIDOGENIC PEPTIDES
      HOMOLOGOUS TO AMYLOID BETA FOR INDUCTION OF AN IMMUNE
      RESPONSE TO AMYLOID BETA AND AMYLOID DEPOSITS
<130> 05986/100K433-US2
<140> TBA
<141> 2003-09-19
<150> US 09/861,847
<151> 2001-05-22
<150> 60/016,233
<151>
      2000-05-22
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<170> PatentIn version 3.0
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Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys
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Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala
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<223> Amino acid residues 7-10 either are present, together as all Lys
      or all Asp or are all absent. When residues 7-10 are present the
       n any one or all of residues 1-6 can either be absent or present
       as Lys or Asp to form, in combination with residues 7-10, a
<220>
<223>
      N-terminal polylysine or polyaspartate segment of 4-10 residues in
       length
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<221> misc feature
<223>
      Amino acid residues 27-31 are LeuValPhePheAla in which one or two
        of residues 27-31 are substituted with Lys, Asp, or Glu. The C-
       terminal Ala residue may be amidated
<400> 2
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Ala Glu Phe Arg His
Asp Ser Gly Tyr Glu Val His His Gln Lys Xaa Xaa Xaa Xaa Xaa Glu
Asp Val Gly Ser Asn Lys Gly Ala
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      misc feature
      Amino acid residues 7-10 either are all Lys or all Asp or are all
       absent. When residues 7-10 are present, then any one or all of
       amino acid residues 1-6 can either be absent or present as Lys or
      Asp to form, in combination with residues 7-10, a N-terminal
<223> polylysine or polyaspartate segment of 4 to 10 residues in length
<220>
      misc_feature
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      Amino acid residues 27-31 and 57-61 are the same and are
       LeuValPhePheAla in which one or two of residues 27-31 and the
       same one or two residues of residues 57-61 are substituted with
      Lys, Asp, or Glu. The C-terminal Ala residue may be amidated
<400> 3
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Ala Glu Phe Arg His
Asp Ser Gly Tyr Glu Val His His Gln Lys Xaa Xaa Xaa Xaa Glu
Asp Val Gly Ser Asn Lys Gly Ala Asp Ala Glu Phe Arg His Asp Ser
Gly Tyr Glu Val His His Gln Lys Xaa Xaa Xaa Xaa Glu Asp Val
Gly Ser Asn Lys Gly Ala
                   70
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<220>

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<210>
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      40
<212>
      PRT
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      misc feature
<221>
      Amino acid residues 31-34 either are all Lys or all Asp or are
<223>
       all absent. When all residues 31-34 are present, then any one or
       all of residues 35-40 can either be absent or present as Lys or
      Asp to form, in combination with residues 31-34, a C-terminal
<220>
<223> polylysine or polyaspartate segment of 4-10 residues in length
<220>
<221> misc feature
<223> Amino acid residues 17-21 are LeuValPhePheAla in which one or two
       of residues 17-21 are substituted with Lys, Asp, or Glu
<400> 4
Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys
Xaa Xaa Xaa Xaa Glu Asp Val Gly Ser Asn Lys Gly Ala Xaa Xaa
Xaa Xaa Xaa Xaa Xaa Xaa Xaa
       35
<210>
      5
<211>
      70
<212> PRT
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<220>
<221> misc_feature
<223> Amino acid residues 61-64 either are all Lys or all Asp, or are
      all absent. When all residues 61-64 are present, then any one or
      all of residues 65-70 can either be Lys or Asp to form, in
      combination with residues 61-64, a C-terminal polylysine or
<220>
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      polyaspartate segment of 4 to 10 residues in length
<220>
<221> misc_feature
<223> Amino acid residues 17-21 and 47-51 are LeuValPhePheAla in which
      one or two of residues 17-21 and 47-51 are the same one or two
      residues substituted with Lys, Asp, or Glu
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Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys
Xaa Xaa Xaa Xaa Glu Asp Val Gly Ser Asn Lys Gly Ala Asp Ala
Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys Xaa Xaa
Xaa Xaa Xaa Glu Asp Val Gly Ser Asn Lys Gly Ala Xaa Xaa Xaa Xaa
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                       55
Xaa Xaa Xaa Xaa Xaa
<210>
      6
<211>
      36
<212>
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<213> Artificial
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<223> Synthetic
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<221> misc_feature
<223> C-terminal residue 36 may be amidated.
<400> 6
Lys Lys Lys Lys Lys Asp Ala Glu Phe Arg His Asp Ser Gly Tyr
Glu Val His His Gln Lys Leu Val Phe Phe Ala Glu Asp Val Gly Ser
Asn Lys Gly Ala
        35
<210> 7
<211> 40
<212> PRT
<213> Artificial
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<223> Synthetic
<220>
<221> misc_feature
<223> Amino acid residues 1-6 can either be absent or present as Lys or
       Asp to form, in combination with residues 7-10, a N-terminal
       polylysine or polyaspartate segment of 4-10 residues in length
<220>
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      misc feature
<223> The C-terminal Ala residue may be amidated.
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<400> 5

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Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Ala Glu Phe Arg His
Asp Ser Gly Tyr Glu Val His His Gln Lys Leu Val Phe Phe Ala Glu
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Asp Val Gly Ser Asn Lys Gly Ala
        35
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      misc feature
<223>
      Amino acid residues 35-40 can either be absent or present as Lys
       or Asp to form, in combination with residues 31-34, a C-terminal
       polylysine or polyaspartate segment of 4-10 residues in length
<400> 8
Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys
Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala Xaa Xaa
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Xaa Xaa Xaa Xaa Xaa Xaa Xaa
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      Artificial
<220>
<223> Synthetic
<220>
<221> misc_feature
      Amino acid residues 7-10 either are present, together as all Lys
<223>
       or all Asp or are all absent. When residues 7-10 are present the
       n any one or all of residues 1-6 can either be absent or present
       as Lys or Asp to form, in combination with residues 7-10, a
<220>
<223>
      N-terminal polylysine or polyaspartate segment of 4-10 residues in
       length
<220>
<221> misc_feature
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<400> 7

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<223> Amino acid residues 27-31 are LeuValPhePheAla in which one or two
       of residues 27-31 are substituted with Lys, Asp, or Glu.
<220>
<221> misc feature
<223> Amino acid residues 45-50 can either be absent or present as Lys
      or Asp to form, in combination with residues 41-44, a C-terminal
      polysine or polyaspartate segment of 4-10 residues
<400> 9
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Ala Glu Phe Arg His
Asp Ser Gly Tyr Glu Val His His Gln Lys Xaa Xaa Xaa Xaa Glu
Asp Val Gly Ser Asn Lys Gly Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa
Xaa Xaa
   50
<210> 10
<211> 80
<212> PRT
<213> Artificial
<220>
<223> Synthetic
<220>
<221> misc_feature
<223> Amino acid residues 7-10 either are all Lys or all Asp or are all
       absent. When residues 7-10 are present, then any one or all of
       amino acid residues 1-6 can either be absent or present as Lys or
       Asp to form, in combination with residues 7-10, a N-terminal
<220>
<223> polylysine or polyaspartate segment of 4 to 10 residues in length
<220>
<221>
      misc_feature
      Amino acid residues 75-80 can either be absent or present as Lys
      or Asp to form, in combination with residues 71-74, a C-terminal
      polylysine or polyaspartate segment of 4-10 residues
<220>
<221>
      misc feature
<223>
      Amino acid residues 27-31 and 57-61 are the same and are
      LeuValPhePheAla in which one or two of residues 27-31 and the
      same one or two residues of residues 57-61 are substituted with
      Lys, Asp, or Glu.
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<400> 10

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys Xaa Xaa Xaa Xaa Glu Asp Val Gly Ser Asn Lys Gly Ala Asp Ala Glu Phe Arg His Asp Ser 40 Gly Tyr Glu Val His His Gln Lys Xaa Xaa Xaa Xaa Glu Asp Val Gly Ser Asn Lys Gly Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa <210> 11 <211> 36 <212> PRT <213> Artificial <220> <223> Synthetic <400> 11 Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala Lys Lys Lys Lys Lys 35 <210> 12 <211> 30 <212> PRT <213> Artificial <220> <223> Synthetic <400> 12 Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys Leu Glu Glu Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala <210> 13 <211> 30 <212> PRT <213> Artificial <220> <223> Synthetic <400> 13 Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys

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            20
                                 25
<210> 14
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<212> PRT
<213> Artificial
<220>
<223> Synthetic
<400> 14
Leu Pro Phe Phe Asp
<210> 15
<211> 30
<212> PRT
<213> Artificial
<220>
<223> Synthetic
<220>
<221> misc_feature
<223> Amino acid residues 17-21 are LeuValPhePheAla in which one or two
       of residues 17-21 are substituted with Lys, Asp, or Glu.
<400> 15
Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys
Xaa Xaa Xaa Xaa Glu Asp Val Gly Ser Asn Lys Gly Ala
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